REMARKS

Applicants reply to the final Office Action dated March 16, 2010, within three months. Applicants also file an RCE, so please review this Reply after entry of the RCE. Claims 16-23 were pending in the application and the Examiner rejects claims 16-23. Support for the amendments may be found in the originally-filed specification, claims, and figures. No new matter has been introduced by the amendments. Reconsideration of this application is respectfully requested.

The Examiner rejects claims 16-23 under 35 USC 102 (b) as being anticipated by Hanaya, US Patent No. 5,754,258 (Hanaya). Applicants respectfully disagree; however, Applicants amend the claims to expedite prosecution and to clarify the patentable aspects of the claims.

The Examiner asserts that column 6, lines 18-26 and column 7, lines 41-44 of Hanaya teaches "the third audio signal having a volume level different from that of the second audio signal" of pending claim 16. Applicants respectfully disagree. In particular, in column 6, lines 18-26 and FIG. 4 of Hanaya, there is a demultiplexer 24 receiving a digital audio signal. Applicants assert that a demultiplexer can only be understood to receive multiple input signals, and composite those signals into a **single output signal**. In Hanaya, this single signal output is sent to a MPEG audio decoder 26, which decodes the single signal. Next, this signal is sent to a digital to analog converter 30, which converts the single decoded digital signal into a single analog signal. Finally, this single analog signal is sent to left and right amplifiers 31L, 31R, which creates the left and right signal output.

Applicants assert that nowhere in this process is there any indication that there are multiple signals with different volume levels. Hanaya only teaches a signal firstly traveling to the demultiplexer 24, secondly to the MPEG audio decoding 26 and thirdly to the digital to analog converter 30. Though analog signals can be designed to encode multiple channels, this would require an additional element (called "x" for clarity) to interpret the single analog audio signal and decode the multiple channels contained

therein. However, Applicants assert that Hanaya does not teach such an element x, and importantly, cannot teach multiple channels with different volume levels contained within a single analog signal.

Furthermore, because Hanaya does not contain this element x, Applicants assert that there would be no motivation for Hanaya to even create such an analog signal that could be decoded to create a multiple channel signal. Moreover, because Hanaya does not contain such an element x, Hanaya cannot teach an analog signal that contains multiple channels, since without properly decoding such an analog signal, the output would be nothing but noise. Additionally, if it was the purpose of Hanaya to have multiple channels with different volume levels, Applicants assert that it is counter-intuitive to have a single demultiplexer 24 that creates a single decoded signal (see column 5, lines 48-67 of Hanaya). Additionally, FIG. 10 of Hanaya only shows a single audio section as part of the encoder data, again implying there is only a single audio input and not multiple volume levels.

Moreover, Applicants assert that splitting a single analog signal into left and right audio output (31L, 31R) is clearly different than having different audio input signals with different volume levels, as described by the claimed invention. Furthermore, the buffer amplifiers 31L and 31R are merely amplifying the signal for the left and right audio output. Even if these buffer amplifiers were given different gains to create different volumes for the left and right speakers, this process would be completed **AFTER** the muting of the single signal by the MPEG video decoder 25 and MPEG audio decoder 26 (see column 21, lines 63-67). Therefore, Applicants assert that, even if the single signal was outputted to the left and right speakers with different gains, this split left and right signal (from a single source with one volume level) could not be individually muted, as the muting operation of Hanaya is performed by the MPEG video decoder 25 and MPEG audio decoder 26 **BEFORE** digital to analog conversion 30 and **BEFORE** it reaches the left and right amplifiers 31L and 31R.

Regarding column 7 lines 41-44 of Hanaya, Applicants respectfully assert that the Examiner may have not fully appreciated the point that the RF IN is controlled by the RF modulator 41 (see column 5, lines 11-25 of Hanaya), which receives the input from the volume button switch 132. Additionally, it can be seen in FIG. 4 that this RF modulator is connected to the digital to analog converter 30, which connects to the left and right amplifiers 31L and 31R. Therefore, one skilled in the art can easily see that the when the volume button switch is operated, the volume is adjusted by a signal being transmitted through the RF modulator 41, to the digital to analog converter 30, and to the left and right amplifiers 31L and 31R, before being outputted. As such, Applicants assert that it is obvious that the volume level of the Hanaya is only adjusted at the output, meaning that volume button switch 132 is used to adjust only a **single global volume**, for the left and right audio output of a single audio channel.

Consequently, based on the arguments presented above, it can be easily seen that Hanaya does not teach multiple input signals with different volume levels.

Additionally, amended independent claim 1 now recites:

> "An audio processing apparatus, comprising:
>
> a ~~second~~ first obtaining section for firstly obtaining a ~~second~~ first audio signal from a ~~second~~ first source;
>
> a ~~third~~ second obtaining section for secondly obtaining a ~~third~~ second audio signal from a ~~third~~ second source, the ~~third~~ second audio signal having a volume level different from that of the ~~second~~ first audio signal; ~~and~~
>
> an output control section for selectively switching between the ~~second~~ first audio signal obtained at the ~~second~~ first obtaining section and the ~~third~~ second audio signal obtained at the ~~third~~ second obtaining section to be output as a sound from a speaker; and
>
> a mute section for muting the second audio signal,
>
> wherein when switching a sound to be output from the speaker from a sound based on the ~~third~~ first audio signal to a sound based on the second

> audio signal, the output control section completes an output of the sound based on the ~~third~~ first audio signal, ~~passes through a mute state~~ **and the mute section mutes the second audio signal**~~; and subsequently starts an output of the sound based on the second audio signal~~." (emphasis added in bold)

Support for this amendment can be found at least in paragraphs [0038] to [0044] and [0072] to [0074] of the published application. Amended independent claims 20 and 21 recite similar features. Claims 17, 18, 19, 22 and 23 are amended for consistency.

Applicants assert that Hanaya does not disclose or contemplate the above feature, nor even recognize the problem of a secondly received signal having a different volume level. In particular, Hanaya describes a device that mutes the audio signal of the first channel, the program **currently** being received (see column 21, line 63 to column 22, line 15), and **does not** mute the signal of the new, secondly received channel, as recited by amended claim 16. According to Hanaya:

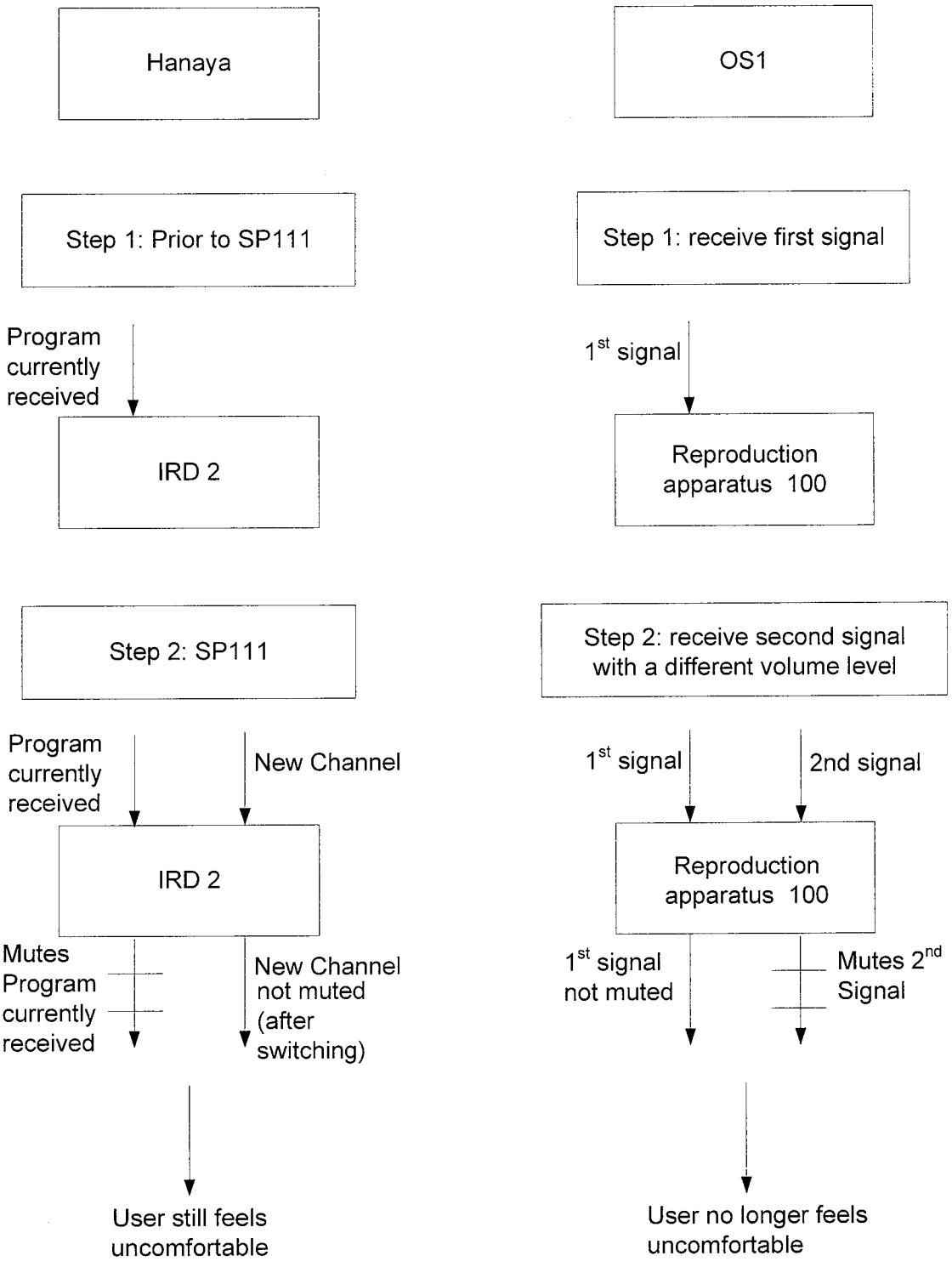
> At step SP111, the processing to convert the image of **the program currently received into a static image** and **to mute the sound** is executed. ... Therefore, **the image that has displayed** becomes static and the sound signal is muted if channel switching in input.
>
> ... step SP112 to start receiving the processing of the program (channel) after switching ... the demultiplexer 24 ... start the processing of **a new channel** ...
>
> step 114 upon the completion of the processing of switching to **release the static image set at step SP111 and the mute of sound**. In other words, at this time, the animated **image of the channel after switching is displayed**, and **the sound signal corresponding to the animated image is output**." (emphasis added)

Applicants assert that this quote of Hanaya clearly shows that when switching occurs, **the program currently received (the first channel) is converted into a static image to mute the sound of the program currently being received, NOT the new channel** (the secondly received, incoming signal). In order to be held equivalent to the claimed invention, it would be necessary for the new channel of Hanaya to be muted, which is

clearly not the case.

Therefore, Hanaya, which mutes a first, firstly received channel, teaches features directly opposite to the claimed invention, which mutes a secondly received signal that has a volume level different from the first signal, in order to reduce user discomfort (see paragraph [0074] of the published application).

As such, Applicants assert that Hanaya is unable to provide the same advantage as the claimed invention, since even if the new channel signal of Hanaya had a different volume (which Hanaya does not teach), Hanaya would merely mute the original signal, instead of the new signal, meaning the user would still feel uncomfortable. The difference between these inventions is further defined below:


Hanaya
OS1
Step 1: Prior to SP111
Step 1: receive first signal
Program currently received
1st signal
IRD 2
Reproduction apparatus 100
Step 2: SP111
Step 2: receive second signal with a different volume level
Program currently received
New Channel
1st signal
2nd signal
IRD 2
Reproduction apparatus 100
Mutes Program currently received
New Channel not muted (after switching)
1st signal not muted
Mutes 2nd Signal
User still feels uncomfortable
User no longer feels uncomfortable

Claims 17-19 and 22-23 variously depend from independent claims 16 and 21. Therefore, Applicants assert that dependent claims 17-19 and 22-23 are differentiated from the cited references for at least the same reasons as set forth above, as well as in view of their own respective features.

Applicants respectfully submit that the pending claims are in condition for allowance. The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account No. **19-2814**. Applicants invite the Examiner to telephone the undersigned if the Examiner has any questions regarding this Reply or the present application in general.

Respectfully submitted,

Dated: June 7, 2010 By: _____

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